



Walsall County Borough
Sanitary Authority.

ANNUAL REPORT

1902



OF THE

MEDICAL OFFICER OF HEALTH.

FOR THE YEAR 1903.

WALSALL:

LITHOGRAPHIC COMPANY, MOUNTRATH STREET.

1903.

HEALTH COMMITTEE

OF THE

WALSALL CORPORATION.

MR. COUNCILLOR JAMES WILLIAMS, Chairman.

MR. COUNCILLOR C. C. WALKER, Vice-Chairman.

MR. ALDERMAN T. P. BROWNHILL	MR. COUNCILLOR J. H. ROBERTS
„ „ SANDERS	„ „ SHELLEY
„ COUNCILLOR DREW	„ „ THOMAS
„ „ HAWLEY	„ „ VENABLES
„ „ INGRAM	„ „ WILLIAMS, JOHN

Meet on the third Monday in each month, at 3 p.m.

Medical Officer of Health.

JAMES SCOTT WILSON, M.D., D.P.H., Camb., F.C.S.

Chief Sanitary Inspector:

ARTHUR THOMAS HUBBLE,

Assistant Inspectors:

ERNEST F. B. A. MINER (No. 1 District).
ALFRED WILLIAM LUCAS (No. 2 District).
GEORGE HENRY WIDGER (No. 3 District).

Clerk:

WALTER T. BLAKE.

County Borough of Walsall.

FOURTEENTH ANNUAL REPORT
OF THE
MEDICAL OFFICER OF HEALTH.

*To the Mayor, Aldermen and Councillors of the County
Borough of Walsall.*

MR. MAYOR AND GENTLEMEN,

I have the honour of presenting to you my Fourteenth Annual Report on the health and mortality of the Borough with an account of the work done by the Sanitary Authority during the year 1902.

I am pleased to say there is a considerable decrease in the death rate as compared with 1901, when 1522 deaths took place, with a death rate of 17·59, while this year there have been registered 1421 deaths, shewing a death rate of 16·33 per thousand. If we go back to the the year 1900, we find we had 1698 deaths, with a rate of 20·21 per thousand.

The Borough has unfortunately been visited by three epidemics, one being of Measles, one of Scarlet Fever, and one of Small-pox.

The mortality from Measles has been very high, 41 deaths having taken place, shewing clearly the extension and severity of the disease, while 34 of these deaths were of children between the ages of 1 and 5 years.

Scarlet Fever is responsible for 23 deaths out of 559 cases notified, giving a percentage of mortality of 4·11. Last year we had 445 cases of Scarlet Fever notified, with 17 deaths.

There have been 30 cases of Small-pox notified, 1 death taking place, that of an unvaccinated man admitted into the Isolation Hospital from the Workhouse, details of which will be seen in body of the Report.

Bronchitis, Pneumonia and Pleurisy are responsible for 256 deaths, and Phthisis for 105, a slight increase of 8 as compared with the preceding year, but considerably less than the number recorded in 1900, when 450 deaths were registered from those diseases.

A pleasing feature in this Report is the marked decrease in the infant mortality as compared with 1900 and 1901, when 560 and 516 deaths respectively took place among infants under 1 year of age. This year 424 deaths have been recorded, from which it is evident that very much improvement must have taken place in the care and feeding of infants, still, however, I consider that our infant mortality is higher yet than it ought to be.

The old property nuisance still gives trouble to the Sanitary Authority and seems to be an exceedingly difficult subject to deal with, as, although many houses have been closed as unfit for human habitation, the difficulty seems to be in knowing what to do with them afterwards.

VITAL STATISTICS.

Area

The area of the Borough is 7,358 acres, giving a distribution of 11·89 persons per acre. The number of inhabited houses is 18,767, shewing an average of 4·66 persons per house.

WALSALL COUNTY BOROUGH.

Causes of, and Ages at Death, during the Year 1902.

CAUSES OF DEATH.	DEATHS IN WHOLE DISTRICT AT SUBJOINED AGES.							DEATHS IN LOCALITIES (AT ALL AGES).					Total Deaths in Public Institutions in the District.
	All Ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	Walsall.	Bloxwich.	Rushall (part in Walsall.	Workhouse.	District Hospital.	
Small-pox ...	1	—	—	—	—	1	—	—	—	—	—	—	1
Measles ...	41	3	34	4	—	—	—	29	9	3	—	—	—
Scarlet Fever ...	23	—	16	5	2	—	—	19	—	4	—	—	—
Whooping-cough ...	15	7	8	—	—	—	—	12	2	1	—	—	—
Diphtheria and mem- branous croup ...	16	1	10	5	—	—	—	12	1	—	—	3	—
Croup ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Fever { Typhus ...	—	—	—	—	—	—	—	—	—	—	—	—	—
{ Enteric ...	23	—	—	7	4	12	—	13	7	2	—	1	—
{ Other continued ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Epidemic Influenza	7	—	1	1	1	4	—	6	—	1	—	—	—
Cholera ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Plague ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Diarrhœa ...	66	54	9	2	—	—	1	55	10	1	—	—	—
Enteritis ...	30	24	3	—	1	1	1	24	4	1	1	—	—
Puerperal Fever ...	1	—	—	—	—	1	—	1	—	—	—	—	—
Erysipelas...	5	1	—	1	—	1	2	2	1	1	1	—	—
Other septic diseases	—	—	—	—	—	—	—	—	—	—	—	—	—
Phthisis ...	105	2	8	3	19	73	—	78	6	3	17	1	—
Other tuber. diseases	2	—	2	—	—	—	—	—	2	—	—	—	—
Cancer, malignant disease ...	50	—	—	—	—	39	11	32	9	2	5	2	—
Bronchitis ...	119	29	16	3	2	40	29	86	21	6	6	—	—
Pneumonia ...	135	40	38	2	6	38	11	98	13	11	10	3	—
Pleurisy ...	2	—	—	—	—	2	—	2	—	—	—	—	—
Other diseases of respiratory organs	—	—	—	—	—	—	—	—	—	—	—	—	—
Alcoholism— Cirrhosis of Liver	18	—	—	—	—	16	2	10	4	—	2	2	—
Venereal diseases ...	7	6	—	—	—	1	—	7	—	—	—	—	—
Premature Birth	79	79	—	—	—	—	—	62	14	3	—	—	—
Diseases & Accidents of parturition ...	1	—	—	—	—	1	—	1	—	—	—	—	—
Heart diseases ...	75	1	—	4	5	41	24	55	7	7	5	1	—
Accidents ...	38	4	9	6	5	13	1	12	4	1	2	19	—
Suicides ...	5	—	—	1	1	3	—	2	—	—	1	2	—
All other causes ...	557	173	47	17	19	144	157	376	84	21	59	17	—
All causes ...	1421	424	201	61	65	431	239	994	198	68	109	51	1



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Walsall is a manufacturing town with residential suburbs, the staple trade being saddlery, although tube making and the manufacture of iron employ a large number of hands. The town is built partly on sand with a clay subsoil, and partly on clay, the surface being uneven, some of the streets having a considerable incline. The house accommodation for the working classes is, on the whole, good, excepting in the very old parts of the town, where the streets are narrow and the ventilation inadequate. Owing to the rapid increase in the population, large suburbs, consisting of streets of houses for the working classes, with sufficiency of open spaces, nearly all having gardens, have been erected during the last few years.

The water supply is provided by the South Staffordshire Water Works Company, and is, for the most part, a deep well water, practically free from risks of pollution.

The population at the last census was 86,440. I have reckoned it at the middle of this year to be 87,500.

There have been registered 3,043 births, 1,546 males and 1,497 females, giving a rate per thousand per annum of 34·77. The birth rates during the last three years have been very similar to one another, being 34·02, 34·19 and 34·77 respectively, thus shewing only a fraction of difference.

The following table gives the number of births quarterly :—

Registration District.	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.	
	Male	Fem.	Male	Fem.	Male	Fem.	Male	Fem.
Walsall	295	279	286	314	291	302	305	272
Bloxwich	66	75	82	50	69	58	79	70
Rushall (part in Walsall)	23	20	14	14	19	19	17	24
Totals	384	374	382	378	379	379	401	366

Deaths.

The total number of deaths from all causes was 1,421, giving a rate per thousand of 16·24, a decrease on the rate of the preceding year which was 17·59 per thousand.

The following table gives the mortality from all causes at subjoined ages according to locality :—

Locality.	At all ages	Und'r 1 year	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upward
Walsall ...	994	324	143	36	45	302	144
Bloxwich ...	198	75	31	9	8	42	33
Rushall (part in Walsall) ...	68	19	13	6	5	18	7
Workhouse ...	109	4	2	—	3	46	54
District Hospital	51	2	12	10	4	22	1
Isolation „	1	—	—	—	—	1	—
Totals ...	1421	424	201	61	65	431	239

The next table gives the quarterly and annual death rate since 1893.

Year.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Year.
1893	25·04	24·38	26·24	23·39	24·42
1894	20·53	14·45	14·98	15·84	16·44
1895	21·05	18·94	21·84	20·42	20·56
1896	20·61	16·73	18·00	18·61	18·48
1897	21·35	17·80	24·75	19·40	20·82
1898	19·85	16·24	19·75	18·37	18·55
1899	18·60	16·14	23·90	19·27	19·48
1900	22·90	19·80	20·00	17·14	20·21
1901	18·17	14·47	19·83	17·89	17·59
1902	17·20	16·32	13·45	17·01	16·24

Infant Mortality.

Among infants under one year of age 424 deaths took place, against 516 in 1901. Out of 3,043 births registered, 424 died before reaching the age of one year, giving a death rate per thousand births of 139·33. On comparing these numbers with the total death rate, we find that it gives us a rate of 4·84 per thousand of the whole population, a decrease on that of the preceding year, when we had a death rate of 5·96 per thousand.

The next table shews the diseases prevalent among infants under one year, and the number of deaths attributed to those diseases.

	1897.	1898.	1899.	1900.	1901.	1902.
Diarrhœa ...	108	74	107	78	98	54
Convulsions ...	88	71	61	109	86	63
Premature Births ...	44	58	87	63	67	79
Pneumonia ...	37	35	35	49	28	40
Marasmus ...	38	39	36	63	50	24
Debility ...	54	44	20	25	34	25
Enteritis ...	34	31	89	27	25	24
Bronchitis ...	41	25	40	34	23	29
Meningitis ...	11	10	21	8	18	12
Whooping Cough ...	5	8	8	25	12	7
Phthisis ...	8	6	15	7	5	2
Measles ...	21	3	1	15	—	3
Tabes Mesenterica ...	—	4	5	8	7	5
Tubercular Peritonitis ...	—	—	—	4	—	3
Aphthæ ...	—	—	3	2	3	—
Simple Atrophy ...	—	—	—	—	6	6
Asthenia ...	—	—	—	—	6	9
Thrush ...	—	—	—	—	1	2
Gastritis ...	—	—	—	—	3	1
Dentition ...	—	—	—	—	—	4
Syncope ...	—	—	—	—	—	1
Laryngitis ...	—	—	—	—	—	2
Rachitis ...	—	—	—	—	—	1
Heart Disease ...	—	—	—	—	—	1

84 enquiries into the causes of death have been held by the Coroner during the year, 51 of males, and 33 of females. It was found that 38 of the deaths were from Accidents, 4 Manslaughters, 5 Suicides, 3 from Drowning, 1 from Excessive Drinking, 31 from Natural Causes, and 2 from Injuries. Ten of the inquests were held on infants under one year of age. Coroner's Inquests.

DEATHS FROM INFECTIOUS DISEASES.

198 deaths have taken place from infectious diseases, exactly one less than in 1901, giving a rate per thousand of 2.24.

The details are as follows :—

	Wal- sall.	Blox- wich.	Rushall (part in Walsall)	Work- house	District Hospital	Isolation Hospital	Total
Small-pox ... ..	...	...	...	...	...	1	1
Measles	29	9	3	...	...	...	41
Scarlet Fever	19	...	4	...	...	...	23
Whooping Cough	12	2	1	...	...	...	15
Diphtheria and Membraneous Croup	12	1	...	...	3	...	16
Enteric Fever	13	7	2	...	1	...	23
Influenza	6	...	1	...	...	...	7
Diarrhœa	55	10	1	...	...	...	66
Puerperal Fever	1	...	...	...	...	...	1
Erysipelas	2	1	1	1	...	...	5
Totals	149	30	13	1	4	1	198

The following table shews the number of deaths from Zymotic disease during the last ten years :—

	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902
Small-pox	71	12	...	...	...	...	...	...	...	1
Measles	88	4	28	27	66	9	2	70	3	41
Scarlet Fever	17	1	2	23	29	13	4	4	17	23
Whooping Cough	15	46	2	50	11	20	24	47	28	15
Diphtheria and Membraneous Croup	4	6	13	16	9	11	12	24	10	16
Croup ... ..	...	...	...	...	...	...	...	2	2	...
Enteric Fever	22	13	10	11	13	22	14	13	12	23
Influenza ... ..	...	...	...	...	...	...	...	32	6	7
Diarrhœa	100	36	162	71	170	114	145	101	119	66
Puerperal Fever	2	3	1	2	4	3	8	5	1	1
Erysipelas	3	4	2	1	...	4	5	2	1	5
Other Septic Diseases ... ..	...	...	...	...	...	...	...	2	...	...
Totals	322	125	220	201	302	196	214	302	199	198

The next table shews the Zymotic death rate for the last ten years :—

	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902
Small-pox	'97	'16	...	...	...	...	...	...	...	'01
Measles	1'20	'05	'36	'34	82	'11	'02	'82	'03	'47
Scarlet Fever...	'23	'01	'02	'29	'36	'16	'04	'04	'19	'26
Whooping Cough ...	'20	'62	'02	'64	'15	'24	'28	'55	'32	'17
Diphtheria and Membraneous Croup	'04	'07	'16	'19	'11	'12	'14	'28	'11	'18
Croup ... ..	...	..	...	...	...	...	...	'02	'02	...
Enteric Fever...	'30	'17	'13	'14	'16	'27	'16	'15	'13	'26
Influenza ... ..	...	...	...	...	...	...	...	'34	'06	'08
Diarrhœa	2'19	'48	2'13	'91	2'12	1 40	1'74	1'02	1'37	'75
Puerperal Fever ...	'02	'04	'01	'02	'05	'03	'09	'05	'01	'01
Erysipelas	'04	'05	'02	'01	...	'04	'06	'02	'01	'05
Other Septic Diseases ... ..	...	...	...	...	...	...	...	'02	...	...
Totals	5'19	1'65	2'86	2'54	3'77	2'37	2'53	3'31	2'25	2'24

INFECTIOUS DISEASES.

There has been a considerable increase in the number Notifications of cases notified from Infectious Diseases, being 800 against 686 notified during 1901. The principal increase is due to the considerable number of Scarlet Fever cases, there being 559 cases this year against 445 during last year. In Enteric Fever notifications we have also an increase, 83 cases recorded this year against 68 in the preceding year.

The following table shews the number of Infectious cases notified during the last ten years :—

1893	1894	1895	1896	1897	1898	1899	1900	1901	1902
1440	457	297	742	1036	585	435	584	686	800

The next table shews the distribution and number of cases notified :—

	Total	Walsall.	Blox-wich	Work-house.	District Hospital
Small-pox	30	21	1	8	...
Diphtheria	41	40	1	...	...
Membraneous Croup ...	9	8	...	...	1
Erysipelas	75	61	9	5	...
Scarlet Fever	559	530	26	3	...
Enteric Fever	83	65	15	3	...
Puerperal Fever	3	2	1	...	...
Totals	800	727	53	19	1

Fees paid to
Medical Men

The fees paid to medical men for Notification Certificates amount to £87 6s. 6d., or an average of 19s. 11½d. per thousand of the population.

The following table shews the fees paid to medical men during the past ten years :—

Year.	Amount paid.			Amount per 1000 of population.		
	£	s.	d.	£	s.	d.
1893	157	5	7	2	2	6
1894	50	15	6	0	13	6¼
1895	29	19	6	0	7	10½
1896	72	5	0	0	18	3½
1897	141	0	0	1	15	3
1898	68	18	6	0	17	1
1899	51	11	6	0	12	7¾
1900	61	8	6	0	14	5½
1901	80	17	6	0	18	7
1902	87	6	6	0	19	11½

Fumigation
and
Disinfectants

Every infected house is personally disinfected by the Sanitary Inspectors, Sulphurous Acid fumes or Formaline being used, at a cost of £48 10s. per annum, or about an average of 1s. 6d. per infected house.

The medical men of the town have given great assistance to the Sanitary Authority by early notification in cases of Small-pox and Scarlet Fever, and also by informing the Inspectors when the patient is free from disease, and when the infected house may be ready for disinfection.

The head master of the various schools has notice sent to him when a scholar attending his school has contracted a notifiable Infectious Disease. This system has worked exceedingly well, and has been the means in many cases of preventing disease from spreading.

Notifications
to Schools.

This Hospital is provided for Small-pox cases only, and is three miles and a half from the centre of the town. It is well equipped and has been used to isolate the thirty cases of Small-pox which have occurred during the year. It is situated in the middle of a large field belonging to the Corporation and is at a sufficient distance from any dwelling to prevent the disease from being carried from the Hospital into Bloxwich, the part of the Borough nearest to the Hospital.

Isolation
Hospital.

There have been notified this year thirty cases of Small-pox. Small-pox, after a freedom in the Borough for seven years from this disease.

On the 14th of April the Medical Officer of the Union Workhouse reported two tramps to be suffering from Small-pox. The Isolation Hospital was immediately opened, and the patients removed the same night. The disease spread among the inmates of the Workhouse, and during the next seven days six more cases were removed from that Institution.

The Sanitary Inspectors during this time gave special attention to the sanitary condition of the district surrounding the Workhouse, and all cases of illness in the

neighbourhood were investigated for the purpose of finding out whether the disease had spread from the Workhouse, but so far as I am aware, nothing was found to give rise to such suspicion.

On April the 19th the first case occurred in the town, in a court in New Street. This was an unvaccinated woman aged forty, who was found to be suffering from this disease in a confluent form. She was immediately removed to the Isolation Hospital, and as the house was an exceptionally poor and dirty one, all the bedding and furniture was taken out into the yard and burned, the house thoroughly disinfected with formaline, and the walls cleansed and white-washed. The husband and five children were re-vaccinated the same day, as well as all the people residing in the same yard and several families in the front street adjoining the court. Happily, no further cases occurred in that locality. The infection in this case was traced to have a certain connection with the Workhouse cases, the woman having been employed at a common lodging house where tramps are in the habit of staying.

No further cases occurred until May the 26th, when a young, un-vaccinated man living in Queen Street, Palfrey, was found to be suffering from Small-pox. He was removed to the Isolation Hospital, where the disease developed, taking a severe confluent form. After passing through a long and critical illness, the patient eventually recovered.

The inmates of this house were re-vaccinated, also twelve persons in the neighbouring houses were vaccinated or re-vaccinated, when it was found that several of them had never before been vaccinated. The house was thoroughly cleansed and disinfected, no more cases occurring in this neighbourhood. The infection was

WALSALL COUNTY BOROUGH.

Cases of Infectious Diseases Notified during the Year 1902.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.							TOTAL CASES NOTIFIED IN EACH LOCALITY.			
	At all Ages.	Under 1 year.	1 to 5 years.	5 to 15 years.	15 to 25 years.	25 to 65 years.	65 and upwards.	Walsall.	Bloxwich.	Workhouse.	District Hospital
Small-pox	30	—	1	3	9	16	1	21	1	8	—
Cholera	—	—	—	—	—	1	—	—	—	—	—
Diphtheria	41	2	19	11	4	5	—	40	1	—	—
Membranous croup ...	9	—	8	1	—	—	—	8	—	—	1
Erysipelas	75	2	2	5	10	41	15	61	9	5	—
Scarlet fever	559	5	200	297	34	23	—	530	26	3	—
Typhus fever	—	—	—	—	—	—	—	—	—	—	—
Enteric fever	83	—	8	30	22	23	—	65	15	3	—
Relapsing fever ...	—	—	—	—	—	—	—	—	—	—	—
Continued fever ..	—	—	—	—	—	—	—	—	—	—	—
Puerperal fever ...	3	—	—	—	1	2	—	2	1	—	—
Plague	—	—	—	—	—	—	—	—	—	—	—
Totals	800	9	238	347	80	111	16	727	53	19	1

ISOLATION HOSPITAL FOR SMALL-POX.

probably conveyed to this house by the patient's brothers, who were cattle drovers, and in the habit of travelling all over the country.

The next case was that of a man who walked into the Isolation Hospital, having been sent there by the medical officer to a large colliery three miles outside the Borough, at which the man was employed. His wife and child were un-vaccinated, and when his residence was visited for the purpose of vaccinating them, it was unfortunately found that his wife was already sickening for the disease, so in her case the vaccination was too late. As it was quite impossible to leave the child behind, the house was closed, and both mother and child taken to the Isolation Hospital. The vaccination came up normally in both cases, the child not developing Small-pox. In investigating this case, the Inspectors found over sixty persons who had never been vaccinated at all; these were now vaccinated, also fifty others re-vaccinated in the surrounding houses. The infection in this case has not been traced, and no further cases occurred in this district.

On May the 29th, a boy seven years of age, residing in Hill Street, was removed to the Isolation Hospital, suffering from what was considered to be a modified form of Small-pox. The same course was pursued in this case as in the other cases, five people in the same house being re-vaccinated, no further cases occurring.

On June the 4th, an un-vaccinated baby was removed from New Street. This case developed into a case of confluent Small-pox. The inmates of the house were re-vaccinated, and no further cases occurred.

On June the 16th, a tramp coming direct from London, was suspected of having Small-pox. He walked to the Hospital accompanied by a police constable, was

re-vaccinated, and detained there for a few days. Small-pox, however, not developing, he was thoroughly disinfected and sent out again.

On June the 24th, a young woman living in Lower Rushall Street, was found suffering from this disease. She was removed to the Isolation Hospital, the house was disinfected, and all the inmates re-vaccinated in the block of buildings where she resided. No further cases occurred, this proving to be the last case in connection with the summer outbreak.

The Hospital was closed from July 8th to November 16th, when a tramp in a common lodging house in No. 3 Peal Street, was found to be suffering from Small-pox. He was removed to the Hospital, the beds and bedding of the house disinfected, the rooms lime-washed, and fourteen of the men residing there were re-vaccinated. Unfortunately we were unable to get every one who had been in contact with this patient re-vaccinated, with the result that four other persons contracted the disease directly from this case. Two of these had left the infected house the same night that the first case was reported, no doubt to avoid being re-vaccinated. Fifteen days afterwards they were found in another lodging house in Dudley Street, to be suffering from Small-pox, and were also removed to the Hospital.

Of the other two cases, one was the woman who washed for the lodgers at 33 Dudley Street, and the other was a man in the same lodging house who developed the disease twelve days after the removal of the first case. He also had left the house while the vaccination was going on, but had returned again after such danger was over. After this case the lodging house had to be a second time disinfected. In the common lodging house in Dudley Street, we were successful in getting all those re-vaccinated

who had come in contact with the patient, but we were not so fortunate in getting so many of the people in the neighbourhood vaccinated as in the other cases.

No further cases occurred in this district, which, in an outbreak of epidemic disease, is one of the most difficult to deal with, being a colony of common lodging houses, and of buildings let as furnished apartments to weekly lodgers of a very poor class.

On December the 2nd, two boys in Chain Court, Bank Street, were found to be suffering from a doubtful eruption, and were removed to the Isolation Hospital. The same course was adopted, of disinfecting and vaccinating, as in the other cases, and no further cases were reported. We have been quite unable to trace the source of infection in these two cases. it is very doubtful whether they were genuine cases of Small-pox, or only a rather severe form of Chicken-pox.

On December 9th, another doubtful case was taken into the Hospital from Villiers Street, Palfrey, re-vaccination and disinfection was again thoroughly carried out, and no further cases were reported from this district.

On December 15th, two brothers living in a court in Garden Street, were found to have contracted Small-pox, and were removed to the Hospital, while re-vaccination, and the cleansing and disinfecting of the house was again carried out. When these cases were discovered, one of the brothers was walking about on the street and actually beginning to desquamate, and most probably would never have been noticed at all if the younger brother, who had never been vaccinated, had not taken the disease and developed confluent Small-pox of a very severe type. No more cases occurred in this street.

On December the 20th, a child was taken into the Hospital from Portland Street, suffering from a very doubtful eruption which developed into Small-pox. The infected house was cleansed and disinfected, and the inmates re-vaccinated.

On December the 26th, father and son, aged respectively 38 and 5 years, were found in a house in Pleck Road to be suffering from Small-pox, and were both removed to the Isolation Hospital. Two of the inmates of this house were re-vaccinated, the other inmates having recently been done, and the house was thoroughly disinfected.

Of the thirty cases occurring in the Borough, eleven were of un-vaccinated persons, one of which died, and nineteen were of vaccinated persons, among whom no deaths took place. Among the nineteen vaccinated cases, six were of such a doubtful character, that it was quite impossible to be able to tell in the early stages, how they were going to develop, and it was only by careful watching for a time that they could be classified. The other thirteen vaccinated cases were of a very mild form, none of them were seriously ill, and all made an excellent and rapid recovery.

In dealing with an epidemic of Small-pox, I am strongly of opinion that vaccination and re-vaccination is by far the most important element in preventing the spread of the disease, and that if we had compulsory vaccination at birth and re-vaccination every ten years, this disease would be unknown. In my experience in hospital of over 800 cases, I have never seen a case of Small-pox in anyone who had recently been vaccinated or re-vaccinated, although I have seen as already mentioned, cases of Small-pox and vaccination running concurrently, the Small-pox having been in the system and developing before vaccination had taken place.

Although the old objections and arguments against vaccination when it was performed from arm to arm, fall to the ground now that calf lymph is used, still there is a great deal of prejudice against it among many of the artisan class, and until they understand better the safety of vaccination and the seriousness of neglecting to have their children done, we will always have a great deal of trouble, anxiety and expense. New legislation, making vaccination and re-vaccination compulsory, would remedy all this.

559 cases of Scarlet Fever have been notified, 5 of which were under 1 year, 200 between the ages of 1 and 5 years, 297 between the ages of 5 and 15 years, 34 between 15 and 25, and 23 between the ages of 25 and 65 years. This is an increase on the number notified last year, 445 cases being recorded then. 23 deaths occurred, 16 being between the ages of 1 and 5, 5 between the ages of 5 and 15 years, and 2 between the ages of 15 and 25, giving a percentage of mortality on the cases notified, of 4·11, Scarlet
Fever.

There have been notified 83 cases of Enteric Fever, against 68 recorded in 1901. 8 of these cases were between the ages of 1 and 5 years, 30 between 5 and 15 years, 22 between 15 and 25 years, and 23 between 25 and 60 years of age. Enteric
Fever.

25 deaths took place, 7 of them being between the ages of 5 and 15 years, 4 between 15 and 25 years, and 12 between 25 and 65 years. We thus see that more than half of the deaths occurred in persons over the age of 25 years.

The increase in the number of cases of Enteric Fever is due to limited epidemic, of a very severe character, which occurred in the Bloxwich district, to which place the infection is supposed to have been carried from South

Africa, by a returned soldier. 15 cases were notified traceable to this infection, while an alarming death rate took place, nearly half of the cases, namely 7, dying.

On comparing this death rate with the mortality occurring among the other 68 cases in Walsall, we find that in Walsall we have a rate of 2·35 per thousand, against a rate of 4·66 in the Bloxwich district.

Diphtheria
and
Membranous
Croup. 50 cases of Diphtheria and Membranous Croup were notified, against 43 in the preceding year. 16 of these cases died, 1 under 1 year, 10 between 1 and 5 years, and 5 between 5 and 15 years of age.

Erysipelas. There have been notified 75 cases of Erysipelas, against 128 recorded in 1901, and 5 deaths took place, 1 under 1 year, 1 between 5 and 15 years, 1 between 15 and 25 years, and 2 over 65 years of age.

Puerperal
Fever. 3 cases of Puerperal Fever have been reported, against 2 in the preceding year, 1 of the cases proved fatal. It is gratifying to note that the number of cases of Puerperal Fever are few, compared with previous years. In 1899 we had 16 cases, in 1900, 8 cases, last year only 2 cases, while this year we have had 3 cases.

Measles. 41 deaths have taken place from Measles during the year against 3 in 1901. This is an enormous increase in deaths from this disease, shewing that an epidemic of a wide-spread and fatal character must have prevailed all over the Borough.

Owing to this disease not being notifiable, we have no knowledge of the actual number of cases occurring, but on comparing the number of deaths with those taking place

from Scarlet Fever, where we find 23 deaths to 559 cases notified, and supposing that these two diseases shew an equal proportion of deaths to notifications, we would see that there must have been over 1,000 cases of Measles in the Borough during the year.

One of the most gratifying features in this Report, is ^{Diarrhœa.} the great decrease in the number of deaths from Diarrhœa, especially among infants under 1 year of age. 66 deaths have been recorded, against 119 in 1901, 54 of these deaths being of infants under 1 year, against 98 at that age in the preceding year. Of the other 12 deaths, 9 were between the ages of 1 and 5 years, 2 between 5 and 15 years, and 1 over 65 years of age.

Although the death rate as compared with the previous year, has decreased very much among infants, still, the fatal nature of this disease among children is very apparent, when we find that out of the 66 deaths, only 5 were of persons over five years of age. No doubt there has been a great improvement in the nursing, feeding, and general treatment of children, at the same time, this death rate is still so much out of proportion, that further care and attention might easily reduce this deplorable infantile mortality.

I know that in a manufacturing town like Walsall, this is a very difficult matter to deal with, owing to many of the mothers being employed in manual labour all day, leaving their infants to the care of others, they themselves not having the necessary opportunities for giving that attention and care which infants require.

7 deaths have taken place from Influenza, against 6 ^{Influenza.} in the preceding year. These occurred during the months of January, March, May, June, and December.

SANITARY WORK.

Sewerage
and
Drainage.

With the exception of a part of the out-lying suburb of Bloxwich, nearly the whole of the Borough is now sewered. The great difficulty in dealing with this un-sewered part, has been the finding of a proper means for disposal.

Bacteriological filter beds, on a small scale and as an experiment, have been laid down, and found to answer the purpose very well. When these are increased sufficiently, we will then be able to deal with all the sewage from this un-sewered part. So much so, have these filter beds been a success, that it is now proposed to deal with the whole of the Borough sewage in the same manner.

House
Drainage.

Special attention has been given to house drainage in old property, and although much has been done to improve it, there is great difficulty in bringing it up to a high standard of efficiency. As a matter of fact, many of the old houses are hardly worth the expense it would incur, were they to be thoroughly re-drained into the sewers.

Ventilation
of Sewers.

I have still to regret that very little has been done in providing efficient sewer ventilation. Ventilating shafts are still few and far between, and I would again suggest that a greater number be erected.

Disposal of
Sewage.

The whole of the sewage of Walsall and part of that of Bloxwich is dealt with at the Sewage Farm, by precipitation and polarite filtration, the effluents on the whole being satisfactory, still, I am looking forward to the time, which I believe is not far distant, when we shall have the Bacteriological method as a means of dealing with the whole of the Borough sewage.

There are no pan closets in the Borough, but we have still a considerable number of privies, notwithstanding that year by year water closets are being substituted in greater or lesser numbers. Privies and
Excrement
Disposal.

These privies, which are regularly and efficiently cleansed by the Borough Surveyor's Department, are, in my opinion, nuisances, in spite of all that can be done in the way of cleansing and disinfecting them, as any method by which the excreta is retained in a receptacle instead of being instantly disposed of, is a dangerous and insanitary one.

The ashpits in the Borough are made small, their floors on a level with the yard, and they are scavenged by the Borough Surveyor's Department, no occupier being required to empty his own ashpit. Being small, it is necessary to empty them frequently, when they are then disinfected, carbolic powder being used. I regret that Destructors to consume are still wanting, to properly destroy this refuse. House
Refuse
Disposal.

In the event of any person applying for the registration of a common lodging house, application is made to the Police, who ask the Sanitary Authority to report through their Medical Officer of Health, as to the suitability of the premises. On receiving a satisfactory report, the premises are registered, after which the sanitary condition of the house is entirely under the supervision of the Police. I do not think this a very efficient method, and would suggest that in future, the sanitary inspection of common lodging houses should be performed by the Sanitary Inspectors as a part of their routine duties, they paying attention to the bedding, beds, walls, floors, and general cleanliness of the house, instead of, as at present, dealing with structural defects. Common
Lodging
Houses.

Slaughter
Houses.

There has been a great deal of improvement made in the condition of the slaughter-houses in the Borough, still, I should like to see a public slaughter-house erected, the use of which would do away with many of the old and insanitary structures now used for this purpose.

A special specification drawn up by the Borough Surveyor and myself, has been adopted by the Sanitary Authority, and enforced in the erection of all new slaughter-houses. This has been the means of bringing the sanitation of the new buildings up to date and most efficient.

Bakehouses.

There are 79 bakehouses, 5 of which are factories under the Act. Most of these are in a good sanitary condition, while several of them are very good. They are regularly visited and their condition reported upon by the Sanitary Inspectors. We have only one under-ground bakehouse, for which a special certificate will be required in 1904.

Dairies,
Cowsheds,
and
Milkshops.

The size of all new cowsheds is regulated by a Bye-Law which gives each animal $4\frac{1}{2}$ feet by 14 feet floor space. Thorough ventilation, light and drainage, are also enforced.

In regard to milk-shops, the regulations are not so well observed as in dairies connected with cowsheds; we have frequent difficulty, especially where two businesses are carried on simultaneously, and it is my opinion that no one ought to be registered to sell milk, who is carrying on another business on the same premises.

There are 43 cowsheds in the Borough, having in all 439 cows, and there are 222 milk sellers.

The Factory and Workshops Act, 1901, has been receiving special attention from the Inspectors. We have 802 workshops on the register, the greater number of which are in the Saddlery trade, while the rest principally consist of bakehouses, Paper Box Makers, Dressmakers, Silver-Platers, Joiners, Blacksmiths, Brass Dressers, File Cutters, Pattern Makers, Bit Makers, Stirrup Makers, Key Drillers, Laundries, and Upholsterers. The principal factories consist of Rolling Mills, Buckle Makers, Saddlers, and Tailoring.

All the factories and workshops have been visited either by myself or the Sanitary Inspectors, during the year, and the chief points attended to have been general cleanliness, ventilation, air space, provision of suitable sanitary conveniences, drainage of floors, and the water supply.

In dealing with the home work, there has been some difficulty in getting the returns from those places which employ only one or two home workers, but from the larger factories the lists have been regularly received, in accordance with the Act. Considering the size of the town and the number of factories, I consider that the number of people doing work in their own homes is not large, as far as is known only about 200 being thus employed at the present time. This number, however, will vary much with the condition of the staple trade of the town.

H.M. Inspector of Factories has notified 107 new workshops during the year. These are not, in reality, all new places of business, but are principally removals to larger or smaller premises. 33 new registrations of

workshops have been sent to H.M. Inspector, by the Sanitary Inspector. H.M. Inspector of Factories has also notified 15 nuisances in workshops, consisting principally of want of lime-washing and defects in the sanitary condition. The Sanitary Authority have served 119 notices of nuisances in connection with workshops.

Over-crowding.

72 notices of over-crowding in dwelling houses have been served, against 13 in the preceding year. In 67 cases either the number of inmates has been reduced, or the families have removed to larger premises.

Smoke Nuisance.

No great improvement has taken place in regard to the smoke nuisance, and I am afraid that until the combustion of coal be superseded by another method of generating power, such as electricity or gaseous fuel, not much improvement in this direction can take place.

Abatement of Nuisances.

Since the systematic house to house inspection has been so efficiently carried on, recurring nuisances are rapidly disappearing, but as long as the old privies are allowed to exist, nuisances must occur now and again from structural defects, as well as from the impossibility of being able to thoroughly cleanse these privies when they are empty, owing to the saturation of the surrounding soil with sewage from the excreta chamber. If all these old privies could be converted into water closets, this form of nuisance would soon become scarce.

Food and Drugs.

100 Samples of food and drugs have been submitted to the Borough Analyst, of which only 6 were found to be adulterations. For details, see Sanitary Inspector's Report.

RAINFALL.

I am indebted to Mr. Best for his kindness in supplying me with the following table, shewing the rainfall for the last seven years :—

Month.	1896.	1897.	1898	1899.	1900.	1901.	1902.
January ...	1·20	2·33	1·44	3·71	3·59	1·55	1·08
February ...	0·88	3·08	1·64	2·16	4·56	2·06	1·63
March... ..	3·65	2·89	1·44	1·02	0·81	2·05	1·35
April	1·32	2·04	1·76	2·51	1·08	1·92	2·28
May	0·31	1·37	5·36	1·92	1·98	1·34	2·92
June	1·69	3·66	1·86	3·02	2·79	3·20	2·21
July	1·67	0·99	1·80	0·92	3·27	2·59	4·13
August	2·24	5·97	1·97	2·34	3·68	2·59	4·13
September ...	4·52	2·70	0·53	4·29	0·94	0·74	1·83
October	2·36	1·52	3·48	3·15	3·18	2·29	2·62
November ...	1·81	2·45	2·63	1·73	2·64	1·48	2·48
December ...	3·81	2·50	2·42	2·39	3·96	5·30	1·97
Totals	25·56	31·50	26·33	29·16	32·48	27·11	26·49

In conclusion I have to thank the Health Committee for their kindness and courtesy to me and to the Sanitary Inspectors in the performance of our duties, and I have more especially to thank the Chairman for the assistance and help he gave me in dealing with the outbreak of Small-pox during the summer months.

During the year another Inspector of Nuisances has been added to the staff, an Assistant Inspector being now in charge of each of the three Districts, while the Chief Inspector's time is principally occupied in dealing with cases of Infectious Disease, Police Court work, and the general supervision of the whole of the work done by the other Inspectors. In comparison with the work done some years ago, I consider now, that the Sanitary work done in the Borough shews a very marked improvement.

I have to thank the Sanitary Inspectors for the loyal way in which they have worked with me, notwithstanding the extra work thrown upon them by the Factory and Workshop Act, a special effort having had to be made to cope with this new departure from their usual routine, and also for the efficient manner in which they carried on the visiting and disinfecting in connection with each Small-pox case.

I have the honour to remain,

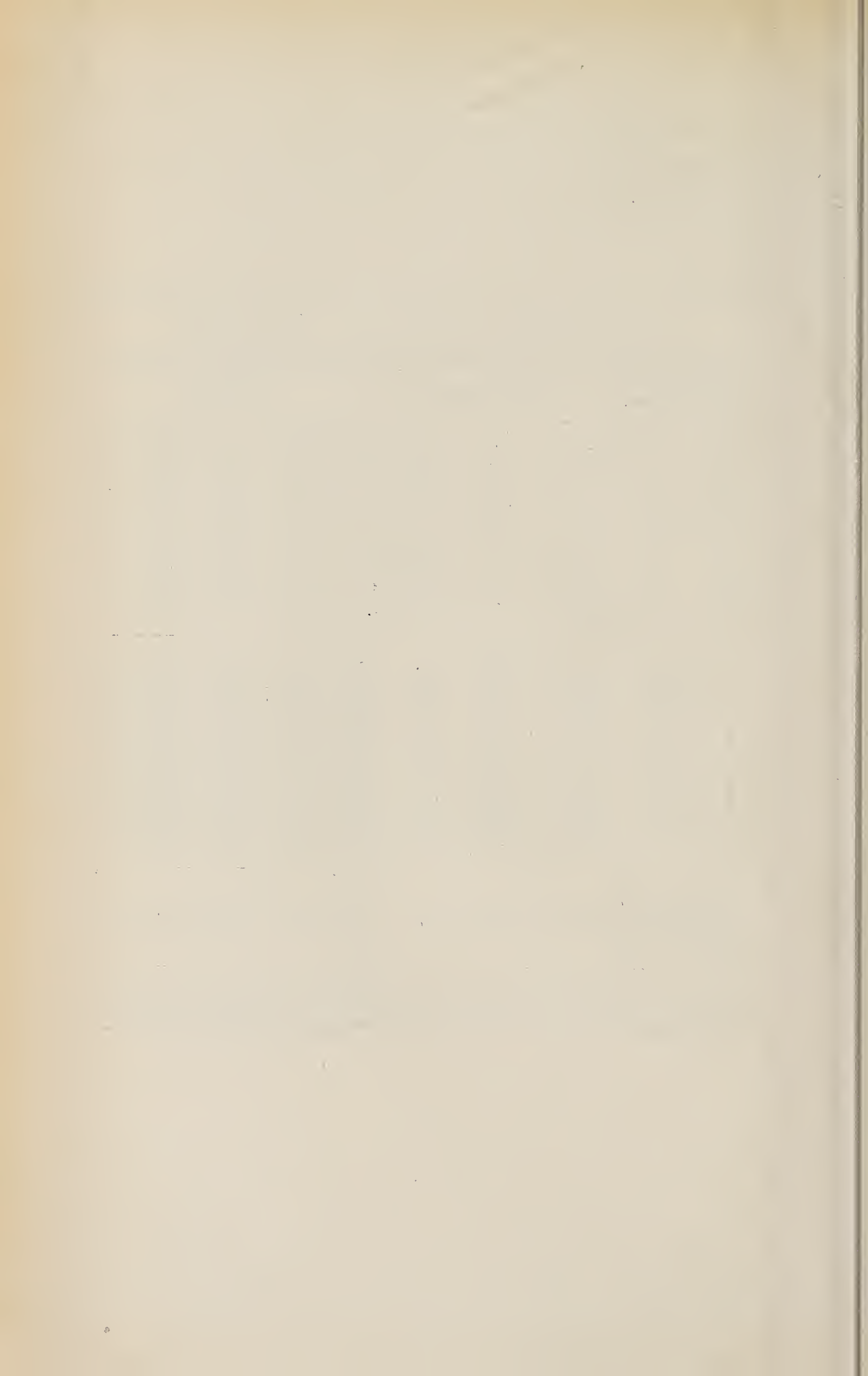
Mr. Mayor and Gentlemen,

JAMES SCOTT WILSON, M.D., D.P.H., F.C.S.,
Medical Officer of Health.

Vital Statistics of separate localities in 1902 and previous years.

WALSALL COUNTY BOROUGH.

Names of Localities.	Whole District.				Walsall.				Bloxwich.				Rushall (part in Walsall).				Workhouse.				District Hospital.				Epidemic Hospital.			
Year.	Population estimated to middle of each year.	Births Registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
1892	73,000	2,686	1,521	502	60,930	2,049	1,131	395	12,070	480	190	74	—	157	97	30	—	—	86	2	—	—	17	1	—	—	—	—
1893	74,000	2,738	1,808	581	61,580	2,101	1,277	435	12,420	477	259	90	—	160	112	35	—	—	81	10	—	—	23	—	—	—	56	11
1894	75,000	2,570	1,234	392	62,280	1,950	856	303	12,720	469	190	58	—	151	61	26	—	—	89	3	—	—	28	1	—	—	10	1
1895	76,000	2,604	1,563	532	63,000	2,010	1,167	436	13,000	444	191	67	—	150	76	28	—	—	88	1	—	—	41	—	—	—	—	—
1896	78,000	2,693	1,442	454	64,500	2,054	1,009	347	13,500	475	220	73	—	164	79	28	—	—	89	5	—	—	45	1	—	—	—	—
1897	80,000	2,751	1,666	550	66,000	2,120	1,229	446	14,000	467	214	68	—	164	86	29	—	—	83	5	—	—	54	2	—	—	—	—
1898	81,000	2,921	1,503	470	66,700	2,203	1,036	369	14,300	502	214	64	—	216	99	38	—	—	107	3	—	—	47	1	—	—	—	—
1899	83,000	2,804	1,617	565	68,200	2,150	1,153	444	14,800	497	221	90	—	157	85	25	—	—	105	5	—	—	53	1	—	—	—	—
1900	84,000	2,858	1,698	560	69,000	2,167	1,180	420	15,000	506	252	90	—	185	99	41	—	—	115	5	—	—	52	4	—	—	—	—
1901	86,500	2,958	1,522	516	61,544	2,277	1,076	404	16,956	528	210	77	8,000	153	72	29	—	—	118	5	—	—	46	1	—	—	—	—
Averages of Years 1892-1901	79,050	2,758	1,557	512	64,373	2,108	1,111	399	13,876	484	216	75	—	165	86	30	—	—	96	4	—	—	40	1	—	—	6	1
1902	87,500	3,043	1,421	424	62,200	2,344	994	324	17,200	549	198	75	8,100	150	68	19	—	—	109	4	—	—	51	2	—	—	1	—



WALSALL COUNTY BOROUGH.

Vital Statistics of whole District during 1902 and
previous Years.

Year.	Population estimated to middle of each year.	BIRTHS.		DEATHS UNDER ONE YEAR OF AGE.		DEATHS AT ALL AGES. TOTAL.		DEATHS IN PUBLIC INSTITUTIONS
		Number.	Rate.	Number.	Rate per 1,000 Births registered.	Number.	Rate.	
1892	73,000	2686	36·79	502	186·88	1521	20·83	103
1893	74,000	2738	37·50	581	212·12	1808	24·40	160
1894	75,000	2570	34·26	392	152·52	1234	16·44	127
1895	76,000	2604	34·26	532	204·30	1563	20·56	129
1896	78,000	2693	34·52	454	168·58	1442	18·48	134
1897	80,000	2751	34·38	550	199·92	1666	20·82	137
1898	81,000	2921	35·06	470	160·92	1503	18·55	154
1899	83,000	2804	33·78	565	201·49	1617	19·48	158
1900	84,000	2858	34·02	560	195·94	1698	20·21	167
1901	86,500	2958	34·19	516	174·44	1522	17·59	164
Averages for years 1892-1901.	79,050	2758	34·97	512	185·70	1557	19·73	143
1902	87,000	3043	34·77	424	139·33	1421	16·24	161

Area of District in Acres (exclusive of area covered by water) 7,358

At Census of 1901 :—Total population at all ages, 87,500; Number of inhabited houses, 18,767; Average number of persons per house, 4·66.

FIFTH ANNUAL REPORT
OF THE
CHIEF SANITARY INSPECTOR
for the Borough of Walsall,
for the year ending December, 31st. 1902.

To the Chairman and Members of the Health Committee.

MR. CHAIRMAN AND GENTLEMEN,

I have the honour of reporting for your information the work carried out under your instructions in my department during the year ending December 31st, 1902.

I would briefly review the events directly connected with my duties as they occurred.

In the first three months of the year, owing to the prevalence of Small-pox in several parts of the country, special attention was given by the Sanitary Inspectors to the preparation and having in readiness of the Isolation Hospital for the reception of patients. I made, with the Assistant Inspectors, a thorough examination of the whole of the common lodging houses in the Borough, with the result that all insanitary conditions which could be remedied were removed, and the houses were rendered in a very fair sanitary condition.

New regulations for bakehouses under the Factory and Workshop Act, 1901, were issued to each of the occupiers of bakehouses.

The provision of concrete floors in several of the old registered slaughter-houses to replace defective brick floors was made.

In April the first cases of Small-pox occurred, and the patients were removed the same evening to the Hospital at Sneyd Lane, and until July the routine District work of the Inspectors was interfered with, owing to their having to carry into effect measures for preventing the disease assuming epidemic form.

In June Mr. F. Sykes, who for seven years had been an Assistant Sanitary Inspector, resigned his appointment to take up the duties of Chief Sanitary Inspector at Cheshunt, and Mr. G. H. Widger was elected to the vacancy and put in charge of the Bloxwich District.

In consequence of the increased population and general growth of the Borough, Mr. A. W. Lucas was appointed as an additional Inspector, and commenced his duties on June 16th.

The work for removing nuisances and insanitary conditions generally, has been proceeded with steadily. Tables II, III, and IV indicate the improvements which have been effected.

The passing of the Factory and Workshop Act of 1901, has entailed an increased responsibility, and I have had special inspection books drawn up for recording the visits and conditions found at all workshops examined by the Inspectors. 790 inspections of workshops have been made, with the result that 158 workrooms were found in a dirty condition, each of which was cleansed and lime-washed shortly after the Inspector's visit.

In 11 instances legal proceedings have been resorted to, viz:—6 under the Public Health Act, 1875, and 5 under the Sale of Food and Drugs Acts, 1875 to 1899; particulars are given in table VII.

An increase in the number of cases of Infectious Diseases notified, has also added to the work of the department. In connection with these cases, 1091 visits have been made, and 438 houses fumigated by the Inspectors.

I am, Mr. Chairman and Gentlemen,

Your obedient Servant,

ARTHUR T. HUBBLE,

Chief Sanitary Inspector.

Health Department,
Borough Offices,
Walsall.

TABLE I.

Number of Notices requiring abatement of Nuisances, &c.

	No. 1 Dist.	No. 2 Dist.	No. 3 Dist.	
To remedy defective drains, water closets, privies, and ashpits	256	343	337	
To repair sinks and fix tubes	57	44	58	
To repair urinals	15	8	7	
To repair manure pits	3	1	1	
To cleanse ditches or cesspools	1	8	12	
To remove stagnant water in cellars... ..	...	1	1	
To cleanse soft water cisterns	3	7	...	
To remove offensive accumulations	6	17	15	
To abate nuisance from the keeping of animals or poultry	29	54	51	
To render houses fit for human habitation	4	...	1	
To repair dwelling houses	62	38	47	
To repair or fix rain water spoutings	36	31	25	
To white-wash, purify and cleanse dwelling houses	9	12	18	
To reduce over-crowding in dwelling houses... ..	28	13	31	
To lime-wash and cleanse slaughter-house ... ..	...	1	...	
To lay cement concrete floor in slaughter-house	6	1	2	
To provide fixed grid at outlet of slaughter- house drains	20	15	11	
To lime-wash, purify and cleanse workshops... ..	40	45	13	
To reduce overcrowding in workshops	1	1	...	
To provide means of ventilation for workshops	1	1	...	
To repair roofs of workshops	1	4	2	
To repair bakehouse	1	...	...
To abate nuisance from offensive trade	1	...	...
To provide houses with drains sufficient for effectual drainage	2	5	8	
To provide water closets, privies, or ashpits	5	4	5	
To provide urinal for public houses	2	2	6	
To provide drinking water	16	13	4	
Notices served under Walsall Corporation Act, 1890.				
To pave back yards	6	7	10	
To disconnect sink, bath, or lavatory waste pipes from sewer	4	7	1	
To cleanse water closets or privies (notice to tenants)	87	49	109	
To cleanse watercourse	10	...	...
To SURVEYOR:—				
Alleged dangerous buildings	13	14	11	
Alleged dangerous wells ... ..	...	1	...	
Defective spouting	1	...	...
Insufficient water supply	4	...	2	
Insufficient privy accommodation at workshops	1	6	...	
Total	731	753	788	2272
To cleanse ashpits				7259
				9531

TABLE II.

Alterations made, and new Structures provided in compliance with notices.

	No. 1 Dis.	No. 2 Dis.	No. 3 Dis.
No. of old privies converted into water closets	43	134	129
New drains (yards in length)	1020	1500	2590
No. of drain traps	149	243	277
No. of ventilating shafts	36	80	69
No. of inspection chambers	26	23	43
No. of new pans in water closets	33	18	39
No. of new traps in water closets	16	13	11
No. of water closets repaired	30	48	19
No. of privies repaired	16	22	54
No. of ashpits repaired	17	21	19
No. of ashpits roofed	8	8	26
No. of urinals repaired	7	4	1
No. of drains cleared	76	80	82
No. of water closets cleared	27	52	42
No. of new sanitary sinks	66	101	92
No. of sinks fitted with sink tubes	131	146	212
No. of sink, bath, or lavatory waste pipes disconnected from sewer	9	19	1
No. of new water closets	10	5	13
No. of new soil pipes ... ..	...	1	1
No. of new privies	2	2	2
No. of new ashpits	9	5	11
No. of new urinals	3	2	7
No. of new cesspools for drainage ... ..	...	2	2
No. of privies demolished and removed	2	3	8
No. of ashpits demolished and removed	1	1	4
No. of urinals demolished and removed	4	20	8
No. of old pan closets taken out (modern closet substituted)	1	1	...
No. of houses drained to sewer	5	3	9
No. of houses drained to covered cesspool ... ..	...	2	23
No. of nuisances removed	575	641	619
Samples of Water submitted for Analysis.			
No. of samples taken	18	17	5
No. certified as good for drinking	4	3	...
" " " unsafe "	11	12	3
" " " unfit "	3	2	2
No. of wells closed	3	7	4
No. of houses supplied with water	13	19	12

TABLE III.

Result of Notices requiring abatement of Nuisance from over-crowding in dwelling houses.

	No. 1 Dist.	No. 2 Dist.	No. 3 Dist.
No. of houses in which the number of inmates were reduced	12	2	4
No. of houses vacated	11	11	27

TABLE IV.

Result of Notices requiring Dwelling Houses to be rendered fit for human habitation.

	No. 1 Dist.	No. 2 Dist.	No. 3 Dist.
No. of houses closed	25	11	10
No. of houses repaired and cleansed throughout	69	61	81
No. of common lodging houses repaired and cleansed throughout	2	3	1
No. of houses having had roofs repaired and spoutings fixed	48	83	56
No. of houses cleansed and lime-washed by occupiers	6	6	14
No. of wash-houses repaired	5	18	11
No. of new wash-houses provided ... ..	...	...	9

The houses closed as unfit for habitation are situated viz :—No. 1 back of 2 Bank Street ; Nos. 4 and 20 Bull's Head Yard (No. 4 demolished) ; 1 to 13 Church Close, Bullock's Row ; 20 and 21 Upper Rushall Street (demolished) ; 5, 6, 7, 8, 9, and 10 Wisemore Villas ; 73 Lower Rushall Street ; 1 in 1 Court, 1 to 6 in 3 Court, and 10, 11, and 12 Dudley Street (demolished, site cleared, and factory erected) ; one house in Palfrey Lane ; 2 back 136 Stafford Street ; 1, 2, 3, 4, 5, 6, 7, and 8 in 5 Court, Stafford Street, and 1 in Court 2 Broadstone.

150 nuisances requiring abatement were under notice on December 31st, 1902.

148 written and 44 verbal complaints of alleged nuisances have been received at the Office, and immediately investigated.

787 letters and memoranda have been sent out, and 689 received, exclusive of reports.

House to house inspections have been made in each District :—

No. 1 District	...	...	2630 houses
No. 2 District	...	...	3313 "
No. 3 District	...	...	2965 "

Total 8908

TABLE V.

Report of the Inspector appointed under the Canal Boats Acts, 1877 and 1884.

(ARTHUR T. HUBBLE.)

The Inspector visits the Canal several times weekly in different parts of the Borough.

No. of boats inspected	...	...	...	...	...	105
8 of the boats were in an excellent condition, 58 were good, 35 fair, in two of the boats the aft cabins were fair, but the fore cabins bad, and the remaining two boats the paint was in a bad condition.						
No. of women on boats inspected	...	...	...	...	...	77
No. of children under 12 years	...	...	...	...	...	99
No. of boats conforming to Acts and Regulations	...	...	...	...	...	96
No. of boats with one or more infringements	...	...	...	...	...	9

The number of women living on canal boats continues very high, and several masters of boats have stated that they have a difficulty in obtaining suitable men at mates, and so are compelled to bring their wives to assist in managing their boats. This arrangement usually renders it necessary for the children to accompany their parents.

Nature of Infringements.	Unregistered boat	...	...	...	...	1
	Absence of Certificate	...	...	...	...	1
	Over-crowding	...	...	...	...	1
	Painting	...	...	...	...	6
	Dilapidation	...	...	...	...	4
<hr/>						
Total infringements met with	...	...	...	...	...	13
Total infringements remedied	...	...	...	...	...	13
No. of legal proceedings taken	...	...	...	...	...	0

The circular letter having a form of Certificate attached, has been sent to the owners of boats on which infringements were found, and the Certificate stating that the infringement is remedied, and signed by an Inspector of Canal Boats, has been returned within the time specified in the letter.

I have cautioned the masters of various boats as to the following matters, viz :—

- (1) Two had the cabins in a dirty condition.
- (2) Two had one child in excess of number the boat was registered to carry.
- (3) One had omitted to carry his copy of Certificate of Registration.

Each of these boats is frequently in a certain wharf in the Borough, and no further action was taken. The matters have been found to be remedied on an inspection a few weeks later.

No case of Infectious Disease has been found on any boat inspected.

Dairies, Cowsheds, and Milkshops.

Each cowshed is lime-washed at least three times during the year.

	No. 1 Dist.	No. 2 Dist.	No. 3 Dist.
No. of persons registered during the year as cow-keepers or milk-sellers	14	24	15
No. of cow-keepers on Register	15	5	23
No. of milk-sellers on Register	63	78	38
No. of milking cows kept	248	25	166
No. of inspections	173	234	192

Bakehouses.

Each bakehouse is lime-washed at least twice during the year.

	No. 1 Dist.	No. 2 Dist.	No. 3 Dist.
No. of bakehouses on Register	24	26	23
No. of underground bakehouses ... ..	...	...	1
No. of bakehouses registered as factories	1	3	1
No. of inspections	271	208	221

Slaughter-houses.

	No. 1 Dist.	No. 2 Dist.	No. 3 Dist.
No. of registered slaughter-houses now in use	12	14	13
No. of licensed slaughter-houses now in use	1	5	3
Total	13	19	16
No. of slaughter-house licenses renewed ...	1	3	3
No. of slaughter-house licenses transferred...	—	3	1
No. of applications for licenses for new slaughter-houses	—	1	2
No. of applications for licenses for new slaughter-houses refused	—	1	2
No. of notices of occupation received ..	3	6	3
No. of slaughter-houses in which cement con- crete floors have been laid	4	—	2
No. of inspections	512	589	568

Fish Yards.

	No. 1 Dist.	No. 2 Dist.	No. 3 Dist.
No. of fish yards	3	6	3
No. of inspections...	96	101	87

Workshops.

	No. 1 Dist.	No. 2 Dist.	No. 3 Dist.
No. of new workshops notified by H.M. Inspector of Factories	45	51	11
No. of new workshops notified to H.M. Inspector of Factories by the Sanitary Inspector	8	7	1
No. of removals notified to H.M. Inspector of Factories by the Sanitary Inspector ...	14	3	—
No. of workshops now on Register...	310	326	166
No. of nuisances reported by H.M. Inspector of Factories	2	13	—
No. of notices served relative to insanitary conditions at workshops	45	57	17
No. of inspections	319	325	146
Work carried out in compliance with notices, viz :—			
No. of rooms lime-washed and cleansed ...	41	110	7
No. of workshops in which means of ventilation have been provided	1	1	—
No. of workshops repaired	1	4	1
No. of other nuisances abated (principally connected with sanitary conveniences) ...	4	6	3

TABLE VI.

Sale of Food and Drugs Acts.

Summary of samples analysed during the year ending December 31st, 1902, showing how many samples of each article were analysed, and how many were reported by the Analyst as adulterated. A statement of legal proceedings will be found in the table VII.

Description of Article analysed.	No. 1 District		No. 2 District		No. 3 District		Total in the Borough.	
	Genu- ine	Adult- erated	Genu- ine	Adult- erated	Genu- ine	Adult- erated	Genu- ine	Adult- erated
Milk	13	1	14	1	8	1	35	3
Butter	4	—	13	1	9	—	26	1
Cheese	—	—	—	—	1	—	1	—
Margarine	—	—	—	—	1	—	1	—
Lard	—	—	1	—	1	—	2	—
Flour	—	—	—	—	1	—	1	—
Self-raising Flour	—	—	—	—	2	—	2	—
Coffee	1	—	—	—	4	—	5	—
Malt Vinegar	—	—	1	—	—	—	1	—
Ground Ginger	1	—	—	—	1	—	2	—
Ground Cloves	—	—	—	—	1	—	1	—
Ground Nutmeg	1	—	—	—	1	—	2	—
Ground Mace	1	—	—	—	—	—	1	—
White Pepper	2	—	2	—	1	—	5	—
Whiskey	1	—	3	—	—	—	4	—
Rum	—	—	—	—	1	—	1	—
Gin	—	—	1	—	—	—	1	—
Camphorated Oil	2	—	—	1	1	—	3	1
Sweet Spirits of Nitre... ..	—	—	—	—	—	1	—	1
Total	26	1	35	3	33	2	94	6

Six purchases of margarine have been made, and in two instances the label required to be attached to each parcel of margarine exposed for sale by retail, was not so fixed as to be clearly visible to the purchaser. The venders were advised to keep all margarine exposed for sale labelled as required by the Margarine Act.

The sample of butter reported as adulterated contained 23·85 of water, but at the time of the sale, a paper wrapper was used bearing a label, stating that the article was milk-blended butter containing about 24 per cent. of water.

53 of the samples were purchased by myself or an Assistant Inspector, 13 were obtained in course of delivery, and in 34 instances private persons were employed to make the purchase. I have caused 19 small parcels of grocery to be purchased, and have taken one or more articles therefrom for the purpose of analysis. In each case the article tested was found to be genuine. During the year no fresh application has been made for registration as wholesale dealer in margarine.

TABLE VII.
Magisterial Proceedings.

No.	Nature of Offence.	Date of Hearing	Result.
1	Not abating nuisance (dwelling houses unfit for habitation) ...	1902. January 7th ...	Order made to close houses within one month. Houses closed Feb. 11th
2	Not abating nuisance (foul ashpits and privies) ...	March 25th ...	1902 Summons withdrawn by Inspector owing to death of Defendant. Nuisance abated by Executors.
3	Not abating nuisance (dwelling houses unfit for habitation) ...	March 25th ...	Adjournment granted for three months. Summons withdrawn on payment of costs 5/6 Houses repaired thro'out.
4	Not abating nuisance (foul ashpit, cesspool, and privies)	July 15th ...	Adjourned till August 15th Summons withdrawn on payment of costs 5/6 Nuisance abated.
5	Not abating nuisance (dwelling houses unfit for habitation) ...	July 30th ...	Order made for work to be completed within 21 days, with costs 14/6
6	Not abating nuisance (drains and trough closets))	July 30th ...	Order made for work to be completed within 7 days, with costs 14/6
7	Selling milk which shewed a deficiency of 12% of cream))	August 15th ...	Fined 5/- and costs, total £1 4s. 6d.
8	Selling camphorated oil which was 22% deficient in camphor & contained cotton seed oil instead of olive oil)	August 15th ...	Fined 10/- and costs, total £1 9s. 6d.
9	Selling milk which contain- ed 7% of added water	August 25th ...	Case dismissed.
10	Selling sweet spirits of nitric which was 58.8% deficient in ethyl nitrite	September 24th	Fined 10/- and costs, total £1 8s. 6d.
11	Selling milk which showed a deficiency of 25% of cream)	September 26th	Fined 40/- and costs, total £2 18s. 6d.

TABLE VIII.
Infectious Diseases.

Cases notified under the Infectious Diseases (Notification) Act, 1889, from January 1st, 1902, to December 31st, 1902.

Nature of Disease.	Wards.									
	Bridge.	Paddock.	Hatherton.	Caldmore.	Pleck.	Birchills.	Leamore.	Bloxwich.	Workhouse.	Walsall and District Hospital.
Smallpox	8	5	3	2	2	1	—	1	8	—
Diphtheria... ..	1	6	3	22	1	3	4	1	—	—
Membraneous Croup	—	—	—	4	—	—	4	—	—	1
Erysipelas... ..	7	4	8	10	6	21	6	8	5	—
Scarlatina	83	76	81	62	59	142	32	21	3	—
Typhoid Fever	14	8	10	8	2	17	4	17	3	—
Puerperal Fever	—	—	—	—	—	2	—	1	—	—
Total	113	99	105	108	70	186	50	49	19	1

Total No. of cases notified, 800.

	No. 1 Dist.	No. 2 Dist.	No. 3 Dist.
No. of houses in which Infectious Diseases have occurred	172	201	270
No. of visits to above houses	220	375	496
No. of houses fumigated by Inspectors	124	171	143
No. of houses fumigated under supervision of Inspectors	48	30	127
No. of persons supplied with brushes		1265	
" " " " lime		1354	

Number of Notices sent to Schools respecting Infectious Disease in houses from which children attend school, January 1st, 1902 to December 31st, 1902.

Name of School.					No. of Notices sent re Infected Houses.	No. of Notices sent Houses free from Infection.
Bath Street ...	...	...	...	...	9	9
Blakenall ...	...	...	...	...	1	1
Bridge ...	...	...	...	...	38	34
Butts ...	...	...	...	...	26	23
Caldmore ...	...	...	...	...	3	4
Catholic (Bloxwich) ...	...	...	...	...	3	3
Centenary ...	...	...	...	...	15	15
Croft Street ...	...	...	...	...	34	33
Elmore Green ...	...	...	...	...	6	8
Glebe Street (temporary)	...	...	...	...	1	1
Hillary Street ...	...	...	...	...	19	18
Leamore ...	...	...	...	...	2	2
Mount Zion (temporary)	...	...	...	...	1	—
National (Bloxwich) ...	...	...	...	...	7	6
Palfrey ...	...	...	...	...	28	29
Queen Mary's ...	...	...	...	...	13	12
St. Andrews ...	...	...	...	...	17	29
St. George's ...	...	...	...	...	3	2
St. John's (Pleck) ...	...	...	...	...	6	3
St. Matthew's ...	...	...	...	...	4	2
St. Patrick's... ...	...	...	...	...	23	25
St. Peter's (John Street)	...	...	...	...	14	11
Tantarra Street ...	...	...	...	...	8	7
Technical ...	...	...	...	...	9	9
The Mount ...	...	...	...	...	17	15
Wesley (Ablewell Street)	...	...	...	...	17	17
Whitehall ...	...	...	...	...	13	11
Whitehouse Street ...	...	...	...	...	19	19
Wisemore ...	...	...	...	...	14	14
Wolverhampton Road	32	32
Private	8	8
Total					410	402

Notices to Sunday Schools of Infected houses

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Streets and Places in the Borough where Infectious Diseases have been reported and visited by the Inspectors during the year 1902, alphabetically arranged in the different wards of the Borough.

Bridge Ward.

STREETS.				No. of cases of Small Pox.	No. of cases of Erysipelas.	No. of cases of Scarlet Fever.	No. of cases of Diphtheria.	No. of cases of Typhoid Fever.	No. of cases of Puerperal Fever.	No. of cases of Membranous Croup.
Ablewell Street	...	...			I	I				
Albert Street	...	...				I				
Corporation Street	...	...				I				
Dandy's Walk	...	...				I		2		
Dudley Street	...	...	3	I	2					
Duncalfe Street	...	...			4			I		
George Street	...	...			I			I		
George Street Terrace	...	...			7			2		
Gorton's Yard	...	...			I			3		
Hart Street	...	...				I				
Hatherton Street	...	...			I	8				
High Street	...	...			I	6				
Hill Street...	...	...	I	I	2			I		
Littleton Street	...	...						I		
Little Newport Street	...	...				4				
Lysways Street	...	...				3				
Midland Road	...	...			I	3				
Newhall Street	...	...				I				
New Street	...	...	2			8				
Orlando Street	...	...				I				
Park Street	...	...				I				
Peal Street	...	...	2			2				
School Terrace	...	...						I		
St. Paul's Street	...	...				4				
Tasker Street	...	...					I			
Temple Street	...	...				2				
The Bridge	...	...			I					
Vicarage Place	...	...				I				
Vicarage Street	...	...				2		I		
Vicarage Walk	...	...				I				
Wisemore ...	...	...				14				
Wisemore Villas	...	...						I		

Streets and Places — *continued.*

Paddock Ward.

STREETS.			No. of cases of Small Pox.	No. of cases of Erysipelas.	No. of cases of Scarlet Fever.	No. of cases of Diphtheria.	No. of cases of Typhoid Fever.	No. of cases of Puerperal Fever.	No. of cases of Membranous Group.
Ball Street...	...	...	2		4				
Bank Street	...	...			6				
Beacon Street	...	...			5				
Bernard Street	...	...			2		I		
Birmingham Road	...	...			3				
Bott Lane ...	...	...			2				
Bridge Street	...	...			I				
Chuckery Road	...	...			I				
Eldon Street	...	...			I				
Essex Terrace	...	...					
Florence Street	...	...		I					
Hatherton Street	...	...			2				
Holtshill Lane	...	...			I				
Kinnerley Street	...	...					
Lichfield Street	...	...		I		I			
Lower Forster Street	...	...		I	II				
Lower Rushall Street	...	...	I		8	2			
Lumley Road	...	...			2	2			
Moncrieffe Street	...	...			I				
Paddock Lane	...	...			I				
Persehouse Street	...	...			4				
Pool Street	...	...			I	I	2		
Richmond Street	...	...					3		
Selborne Street	...	...			2				
Sutton Crescent	...	...			I				
Tantarra Street	...	...			4				
Tantarra Walk	...	...			I		I		
Upper Walhouse Street	...	...			3				
Walhouse Street	...	...	2		I				
Walsingham Street...	...	...		I	2		I		
Ward Street	...	...			4				

Streets and Places—*continued.*

Hatherton Ward.

STREETS			No. of cases of Small Pox.	No. of cases of Erysipelas.	No. of cases of Scarlet Fever.	No. of cases of Diphtheria	No. of cases of Typhoid Fever.	No. of cases of Puerperal Fever.	No. of cases of Membranous Croup.
Aldridge Road	...	...			I				
Ann Street...	...	...			II	I			
Borneo Street	...	...			2				
Butts, The...	...	...		I					
Butts Road	...	...		2	3				
Butts Strret	...	...					I		
Cannon Street	...	...					2		
Cecil Street	...	...		I	2				
Chapel Street	...	...					I		
Day Street...	...	...			2				
Garden Street	...	...	2		4				
Hatherton Street	...	...			2	I	2		
James Street	...	...			6				
John Street	...	...			4				
Lichfield Road	...	...			3				
Lichfield Street	...	...		I					
Littleton Street	...	...			I				
Mellish Road	...	...			I				
Mill Lane ...	...	...		I					
Mill Street...	...	...		I	4				
North Street	...	...			8		I		
Portland Street	...	...	I		4				
Red Lion Street	...	...			I				
Ryecroft Cottages	...	...			I				
Ryecroft Street	...	...			3	I			
Stafford Street	...	...			2				
Teddesley Street	...	..			4		2		
Upper Forster Street	...	...			I		I		
Westbourne Road	...	...			3				
Westbourne Street	...	...			I				
William Street	...	...		I	7				

Streets and Places—*continued*.

Caldmore Ward.

STREETS		No. of cases of Small-Pox.	No. of cases of Erysipelas.	No. of cases of Scarlet Fever.	No. of cases of Diphtheria	No. of cases of Typhoid Fever.	No. of cases of Puerperal Fever.	No. of cases of Membranous Croup.
Arundel Street	...		I	4				
Bath Street	...			I				
Belvidere Road	...			2				
Bescot Street	...				I			I
Brace Street	...			3				
Caldmore Road	...			I	2			I
Cambridge Street	...					I		
Camden Street	...				5			
Charlemont Road	...			I				
Cobden Street	...		I	I	I			
Corporation Street	...			2				
Dale Street	...			I	I			
Highgate Road	...			2				
Hope Street	...				I			
King Street	...			I				
Lord Street	...				I			
Lysways Street	...		I	I				
Milton Street	...			5		I		
Mount Street	...		I	5				I
Newhall Street	...		I		I			
Oxford Street	...					I		
Queen Street, Palfrey	...	I						
Rutter Street	...			3				
Sandwell Street	...		3	2				
South Street	...			I	I	I		
Spout Lane	...		I	I	I	I		
Sun Street ...	...			I				
Victor Street	...			3	4			I
Villiers Street	...	I						
Vincent Street	...			2				

Streets and Places—*continued.*

STREETS.		No. of cases of Small Pox.	No. of cases of Erysipelas.	No. of cases of Scarlet Fever.	No. of cases of Diphtheria.	No. of cases of Typhoid Fever.	No. of cases of Puerperal Fever.	No. of cases of Membraneous Croup.
Watery Lane	...			1				
Wednesbury Road	...			1		1		
Weston Road	...			2		1		
Westbromwich Street	...			1	1			
Westbromwich Road	...			3	1			
Whalebone Street	...			1				
Whitehall Road	...		1	3	1	1		
Windmill Street	...			3				
Windsor Street	...			4				

Pleck Ward.

Augustus Street	...			2				
Bescot Road	...			2				
Bridgeman Street	...		1	6				
Brineton Street	...			1				
Brook Street	...			1				
Chapel Street	...			1				
Darlaston Road	...			3				
Long Street	...		1	4				
Marsh Street	...			1				
Navigation Street	...			3				
Oxford Street	...		1	1				
Pleck Road	...	2		4		2		
Prince Street	...			14	1			
Queen Street, Pleck	...		1	2				
Rollingmill Street	...			2				
Scarborough Road	...			1				
Slaney Road	...			1				
Station Street	...		1	1				
Wednesbury Road	...			2				
Wolverhampton Road	...			4				
Wolverhampton Street	...		1	3				

Streets and Places—*continued.*

Birchills Ward.

STREETS.		No. of cases of Small Pox.	No. of cases of Erysipelas.	No. of cases of Scarlet Fever.	No. of cases of Diphtheria.	No. of cases of Typhoid Fever.	No. of cases of Puerperal Fever.	No. of cases of Membraneous Group.
Adams Street		3				
Bentley Lane		5				
Birchills Street	I					
Birch Street		3	3	I		
Blue Lane...	I	15			I	
Burrowes Street	I	16		2		
Cairns Street	I	6				
Croft Street		2				
Dalkeith Street		5				
Farringdon Street	I	11			I	
Forge Street		2				
Francis Street	I	I				
Green Lane	2	15		6		
Hollyhedge Lane	I	10				
Jessel Road	I	2				
Lewis Street	2	2				
Little Street		I		I		
Long Acre Street	3	4		I		
Margaret Street	I			I		
Newland Street		I				
Pargeter Street		7		I		
Penkridge Street	I	4				
Raleigh Street		7		I		
Regent Street		8		2		
Rowland Street	I	2				
Short Acre Street	2	I				
Stafford Street		4				
Thomas Street	I	I				
Wolverhampton Road		3				
Wolverhampton Street	I	I		I		

Streets and Places—*continued.*

Leamore Ward.

STREETS.			No. of cases of Small Pox.	No. of cases of Erysipelas.	No. of cases of Scarlet Fever.	No. of cases of Diphtheria.	No. of cases of Typhoid Fever.	No. of cases of Puerperal Fever.	No. of cases of Membranous Croup.
Alma Street			2				
Bentley Lane			1				
Bloxwich Road		2	5	1			1
Cemetery Road		1					
Chapel Street (Blakenall)			1				
Coalpool Cottages							1
Foster Street (Blakenall)			2				
Green Lane		1	16	2	2		
Hospital Street			1				1
Leamore Lane			1				
Old Birchills		1					
Old Lane					1		
Portland Street							1
Proffit Street			3				
Reedswood Lane				1	1		
Reeves Street		1					

Bloxwich Ward.

Alfred Street	...	...		1	4				
Church Street	...	...			1				
Elmore Green Road	...	...		2	3	1			
Elmore Row	...	...		2					
Field Street	...	...	1		1			1	
Green, The	...	...					1		
High Street	...	...		1	2				
Little Bloxwich	...	...			2				
Marlborough Street	...	...			1				
Park Road	...	...			1		15		
Parker Street	...	...					1		
Pinfold	...	...			1				
Sneyd Lane	...	...			2				
Stafford Road	...	...			2				
Station Street	...	...		2					
Wallington Heath	...	...			1				

